



## Product description

The 6LoWPAN IoT gateway functions as a border router in a 6LoWPAN network, connecting a wireless IPv6 network to the Internet.

The use of NAT64 allows to address IPv4 servers from any 6LoWPAN node. Therefore, e.g. sensor data from the radio network can be transmitted to servers located anywhere in the internet.

The hardware is based on an ARM®Cortex® - M3 SoC by Texas Instruments (CC2538) with 512kB Flash and 32kB RAM. This chip also provides an 802.15.4 compliant radio interface in the 2.4GHz band. In addition to the 2.4GHz radio interface, an extra sub - GHz transceiver (CC1200) also allows the use in the frequency band 868 or 915MHz.

The connection to the Internet takes place via a 10BASE-T Ethernet interface, implemented using a Microchip Ethernet Controller (ENC28J60).

The software for this platform is based on the open source operating system "Contiki" and is available on Github. The gateway is available in a version without casing for development purposes.

## Essential accessory

The 6LoWPAN module COUA, which also uses this free operating system, can perform as a low power device node.

## Technical data

Hardware	TI CC2538 ARM®Cortex®-M3® SoC with 512kB Flash / 32kB RAM
Radio Interfaces	<ul style="list-style-type: none"> <li>• 802.15.4 (2.4GHZ)</li> <li>• 802.15.4g (Sub-GHz)</li> </ul>
Sub-GHz Transceiver	TI CC1200
Frequency Range	2.4GHz or 868/915MHz
Wired Interfaces	<ul style="list-style-type: none"> <li>• 10BASE-T Ethernet (Microchip ENC28J60)</li> <li>• USB Virtual COM Port (USB 2.0 Full Speed compatible)</li> </ul>
Number of 6LoWPAN Child Nodes	Min. 32
Casing Dimensions	110 x 76 x 29.5mm
Current Consumption	Max. 250mA
Software	Free operating system „Contiki“

## Features:

- 3GPP licensed technology
- Powerful Microcontroller with AES and SHA Encryption Engine with 512kB Flash, 32kB RAM
- Dual-band Operation:
  - 2.4 GHz or
  - 868 / 915MHz
- Tabletop / Wall-Mount Enclosure
- Internal Antennas (U.FL optional)
- 10BASE-T Ethernet
- Serial Interface and Firmware-Update via USB
- Perfect as a Development Platform
- „Plug-and-Play“ NAT64
- Source Code available for Download
- Power Supply via USB Micro Connector

## Applications:

- 6LoWPAN Sensor Networks
- Home Automation
- Industrial Control